

# **Defense Technology Security Administration**

---



**Briefing for:**

**June 2013**

**By: Rizwan Ramakdawala  
Senior Aerospace Engineer**



# DTSA Mission

---

A faint, light gray world map is visible in the background, showing the outlines of continents and countries.

Identify and mitigate national security risks associated with the international transfer of advanced technology and critical information in order to maintain the U.S. warfighter's technological edge and support U.S. national security objectives.

# Strategic Goals

## ENSURING THE EDGE

- Shape the regulatory and policy environment to ensure that technology security, information security, and foreign disclosure requirements and risks are considered and addressed
- Assess the risk of transferring advanced technology and critical information to foreign entities, identify means to mitigate or eliminate risks, and provide recommendations for doing so to decision makers
- Cooperate with U.S. Allies and partners as they build their capability to protect advanced technology and critical information
- Facilitate the health of the U.S. industrial base





**Sr Adv for Arms Ctrl  
& Strat Stability**

**Global Strategic  
Engagement Team**

**Under Secretary of Defense (Policy)**  
Dr. James Miller  
**Principal Deputy USD (Policy)**  
Dr. Kathleen Hicks

DSCA

DPMO

**USD(P) CoS**  
Peter Verga

**DTSA**

**ASD**  
International  
Security Affairs

**PDASD:**

DASD  
Middle East

DASD  
African Affairs

DASD  
Europe & NATO

DASD  
Russia, Ukraine  
& Eurasia

Rep to NATO

**ASD**  
Asian & Pacific  
Security Affairs

**PDASD:**

DASD  
East Asia

DASD  
South &  
Southeast Asia

DASD  
Afghan., Pakistan  
& Central Asia

**ASD**  
Homeland Defense &  
Americas' Security  
Affairs

**PDASD:**

DASD  
HD Strategy  
& Force Planning

DASD  
Defense Continuity  
& Crisis Mgmt

DASD  
HDI & DSCA

DASD  
Western  
Hemisphere

**ASD**  
Global  
Strategic Affairs

**PDASD:**

DASD  
Countering-WMD

DASD  
Nuclear & Missile  
Defense Policy

DASD  
Cyber Policy

DASD  
Space Policy

**ASD**  
Special Operations  
And Low Intensity  
Conflict

**PDASD:**

DASD  
Special Ops & CT

DASD  
Partnership Strat &  
Stability Ops

DASD  
Counternarcotics  
& Global Threats

**DUSD**  
Strategy, Plans,  
& Forces  
**CoS**

DASD  
Strategy

DASD  
Plans

DASD  
Force  
Development

DASD  
RoL/Detainee  
Policy

DASD  
POW/MPA

Enterprise  
Services



POLICY

# Defense Technology Security Administration

**Director, Defense Technology Security Administration (DTSA)**

**Mr. James A. Hursch**

**Deputy Director, (DTSA)**

**Mr. Timothy Hoffman**

**Military Assistant**

**Licensing Directorate**

**Technology Directorate**

**Policy Directorate**

**Technology Security & Foreign Disclosure Office**

**International Security**

**Space Directorate**

**Management Directorate**

- License Reviews
- Commodity Jurisdictions
- Voluntary & Directed Disclosures
- Regulations

- Aeronautical
- Electronics
- Information & Communications
- Sensors & Lasers
- Missiles & Space
- NBC/Land/Naval/Materials/Machine Tools
- Space Monitoring

- Regional Policy
- Negotiations & Liaison
- Strategic Analysis & Assessments

- ATTR SSG Secretariat
- Releases in Principle/Specific
- DoD TSFD Process Oversight
- ATTR SSG TSFD Policies

- Secretariat NDPC
- FG Disclosure Policy
- Security Surveys
- General Security Agreement
- NATO Security Policy
- FN Pers Assgn Policy
- Monitor International Security Program
- International Security Training Oversight

- License Monitoring
- Tech Exchanges
- Tech Data Reviews

- Finance
- Administration Contract
- Human Capital
- Security
- Info Technology Integration



POLICY

# Department of Defense Role in Export Controls



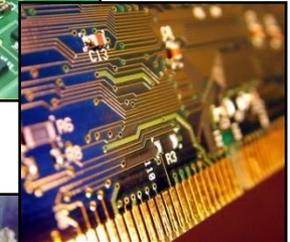
State  
(Munitions)



Commerce  
(Dual-Use)



Defense



Refer  
Recommend

Refer  
Recommend



POLICY

# DoD Review of Technology Transfers

---

## Assessing impact on national security

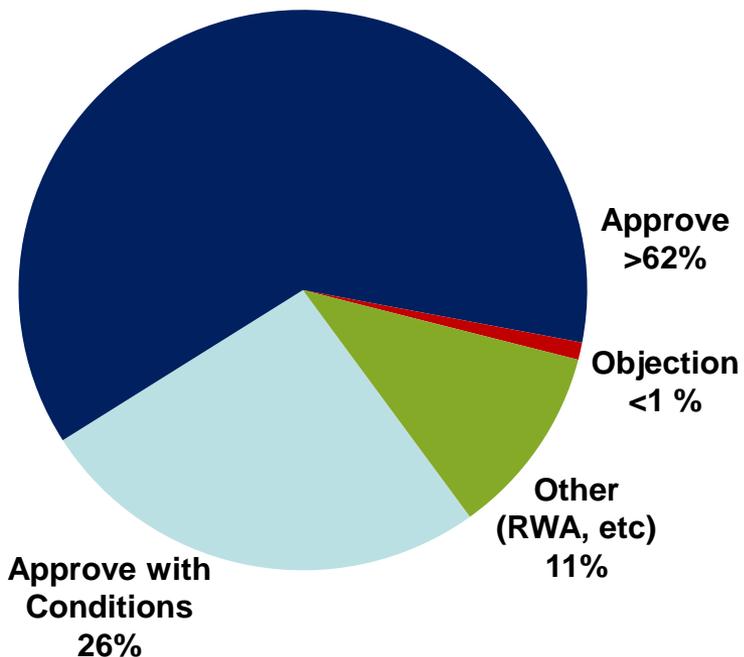
- **Factors considered:**
  - Policies (region, country and technology)
  - Level of technology (U.S. systems and countermeasures)
  - End-user and end-use history
  - Military operational impact
  - Inter-operability requirements
  - Bilateral, multilateral and international agreements
  - Foreign availability of comparable systems
  - Classified data transfers



POLICY

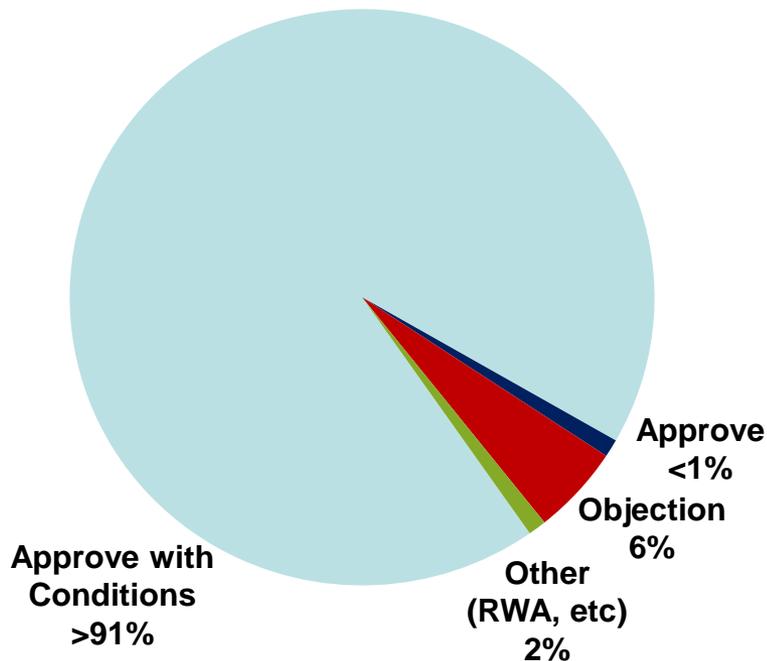
# 2012 License Reviewed

## Munitions



43,591 Licenses Reviewed

## Dual Use

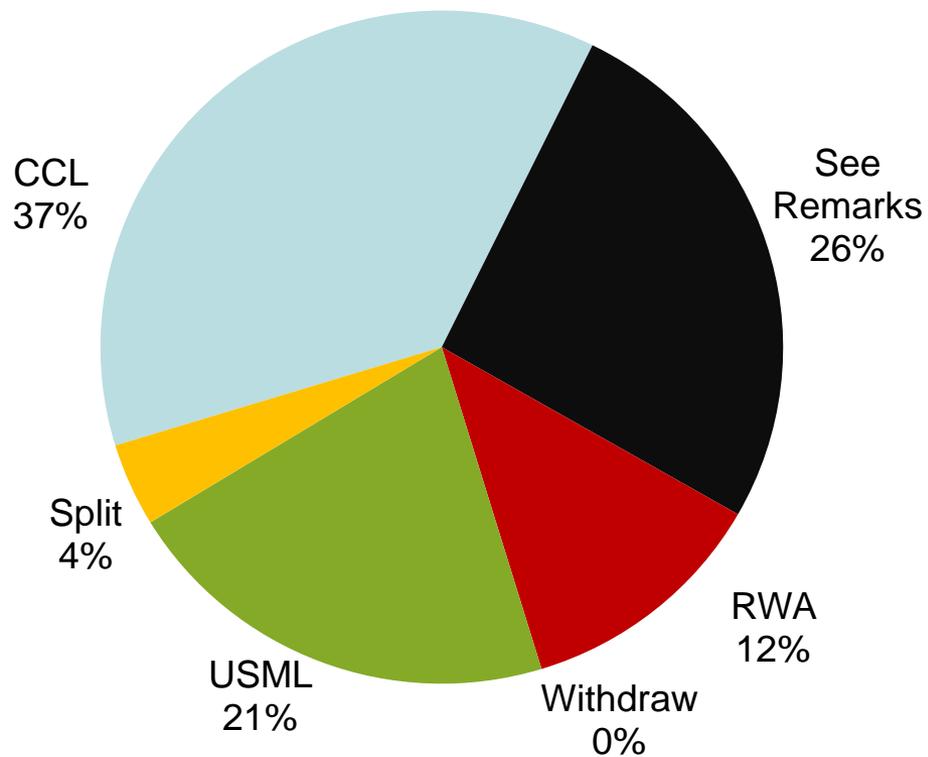


20,251 Licenses Reviewed



POLICY

# DoD 2012 CJ Positions



**1,753 Decisions, 1 Jan - 31 Dec 2012**

# Technology Directorate



UNCLASSIFIED



# Technology Directorate Mission

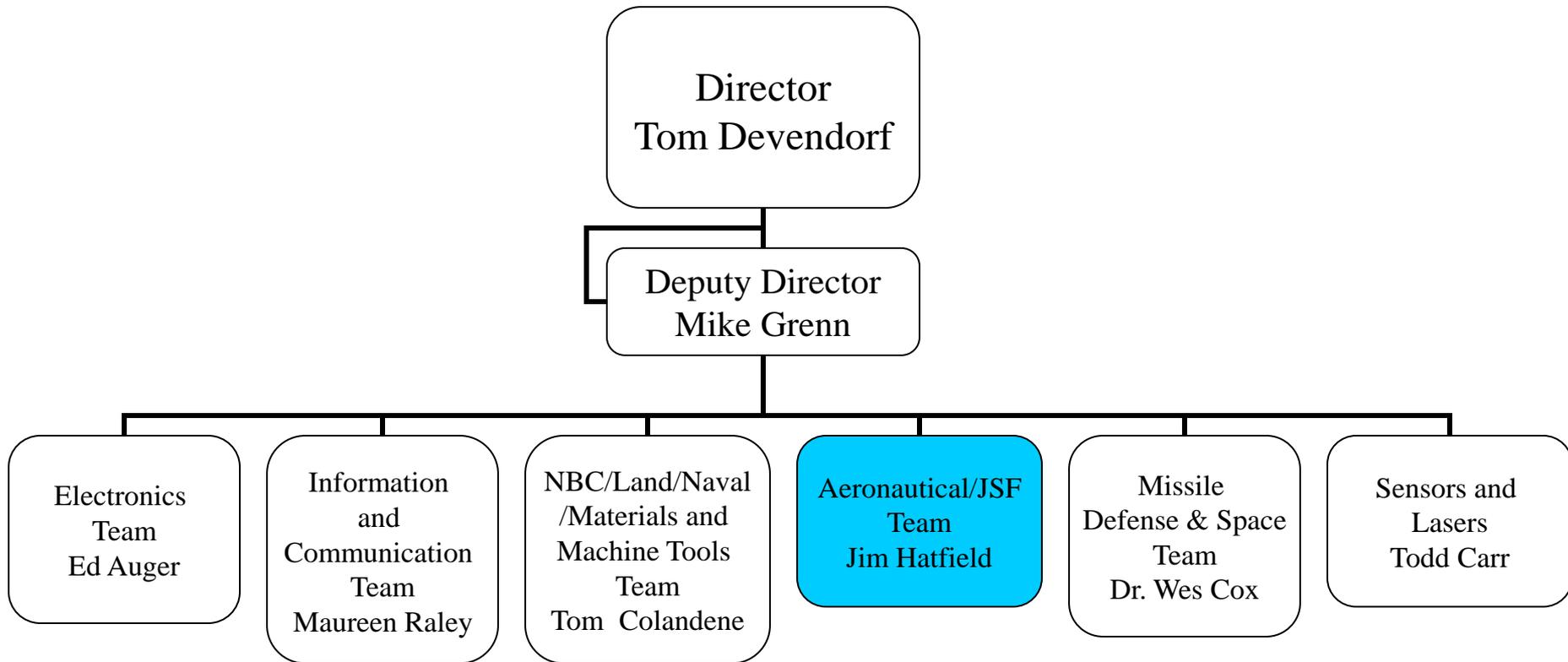
---

- To provide comprehensive, in-depth technical analysis to support the DoD export review process.
  - To ensure that the DUSD (TSP/NDP)'s technology security objectives are considered in the planning and implementation of major international cooperative programs.
  - To chair Technical Working Groups in technology specific areas to pinpoint critical U.S. technologies and develop sound export control recommendations for leadership consideration.
  - To provide technical advice and consultation to U.S. Defense Industry on proposed international exports.



POLICY

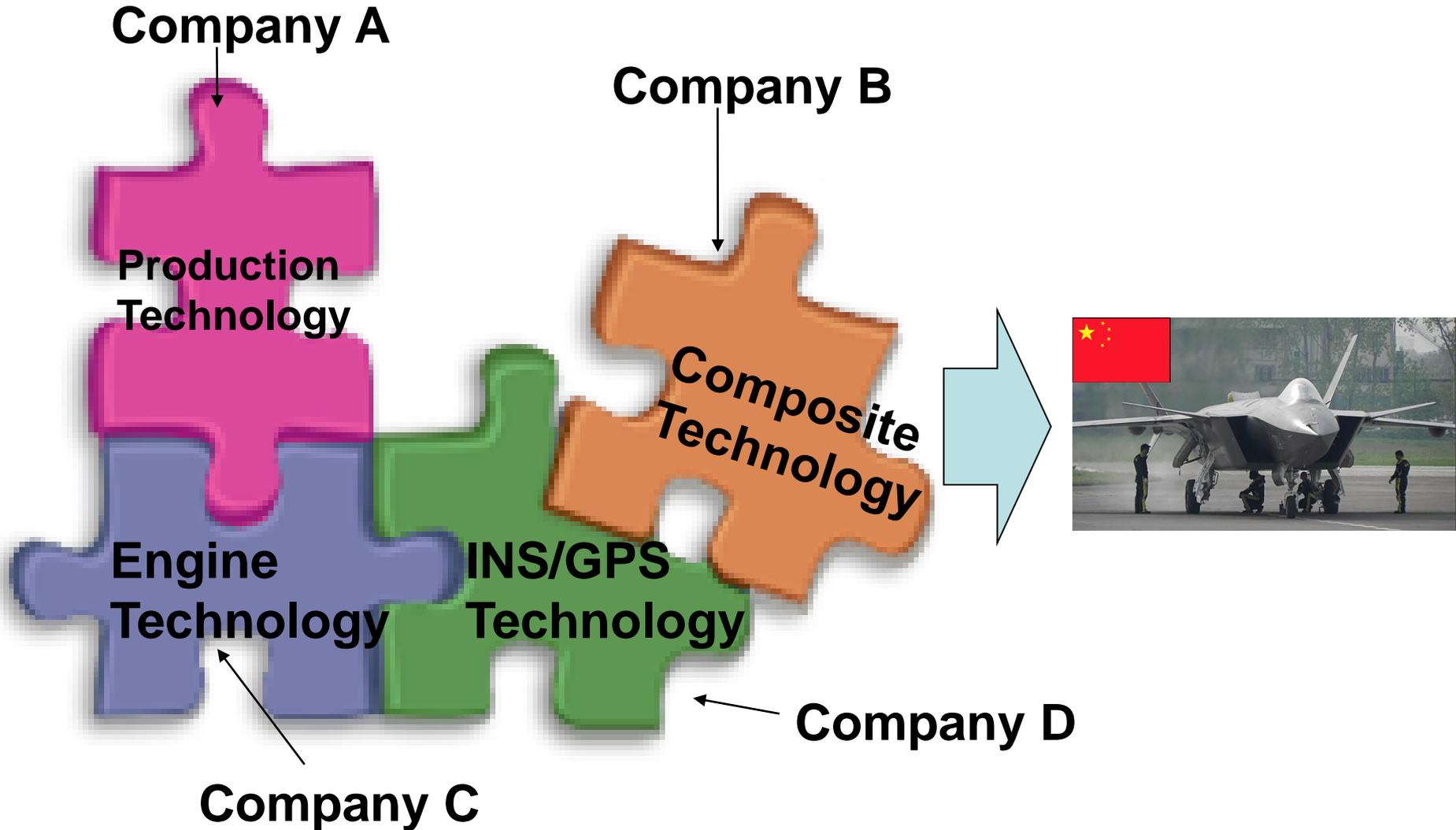
# Defense Technology Security Administration Technology Directorate





POLICY

# Technology Jigsaw Puzzle





POLICY

# Aviation and Engine Technology

---

- The balance is allowing companies to export dual-use items (commodities, technology or software) to foreign parties while preventing the growth of military capability for countries of concern.
- Not all countries are created equal and other countries may not share the same concerns as the USG. This makes controlling technology very difficult.
- There are countries of concern making concerted efforts to acquire aviation and gas turbine engine technology through exports.



POLICY

# Aviation and Engine Technology (Cont.)

---

- The U.S. and its close allies has several models where the lines between a commercial aircraft and military aircraft are blurred by only certain components or capabilities. E.g., P-8 and 737, the H-92 and S-92, or F101 and CFM56.
- The U.S. and its close allies has years of experience with systems design and engineering that has been facilitated by the U.S. military, as well as commercial requirements, that is being exported to shortcut other countries capabilities in these areas.
- The U.S. and its close allies **MUST** maintain superiority in aviation technology.
- Joint Ventures, offsets, co-production and/or co-developments threaten that advantage if not properly mitigated.



POLICY

# Technical Review Process

---

- Technical review template:
  - What is the item?
  - What capabilities does it provide?
  - Are there other applications in addition to stated end-use?
  - What is the foreign availability?
  - What is the critical technology we are trying to protect?
  - Options:
    - Approve
    - Approve with provisos
    - Deny
    - Return without action
  - Justification is provided for all recommendations



# Program Technology Release Roadmap

---

- The key to developing and implementing a program is to address technology release decisions as any other acquisition milestone (e.g., development, testing, production)
- The best way to do so is to develop a “Technology Release Roadmap” which defines what technology decisions are required and when they are required to meet program goals
- Work backward from the end state, set goals, brief and follow-up!

# License Preparation Guidance





# Applicant's Role

---

- It is incumbent on the applicant to:
  - Provide the information DoD needs to conduct a thorough technical review
  - “Draw the box” for their export request in the application, so provisos are not imposed constraining the applicant for items they have no intention of exporting



POLICY

# Good Habits That Should Be Hard To Break

---

- Focus on the basic elements of every license request: country, commodity, end-user and end-use
- Identify license precedents or case history. Include copies
- Provide clear, concise cover/transmittal letter
- Learn the ITAR/EAR, both layout and content
- Compliance before and after licensing
- Improve knowledge through recurrent training



POLICY

# Reducing RWA's/ Avoiding Death by Proviso

---

- Tell us in plain English:
  - What you are doing
  - What you are not doing (may be more important)
  - Avoid jargon, don't rely on program names
- Describe the technical data flow between parties
  - ITAR Technical Data definition – Information which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles. This includes information in the form of blueprints, drawings, photographs, plans, instructions and documentation.
- Review previous license provisos
- Cite previous cases, more than one is OK



POLICY

# Reducing RWA's/ Avoiding Death by Proviso

---

- Government POC
  - Verify POC information provided
  - If none, what Service would be interested
- Countries - not all countries are created equal
- Temporary Licenses
  - Tell us how will you maintain control
  - Note that Government and Industry end-users are treated differently
  - Be realistic with quantities
- List internet web-site to assist tech review
- Bottom line, pass the “Grandma check.” Grandma should be able to determine your intentions by reading your application



POLICY

# What is a Deemed Export?

---

- Release in the United States of technology or source code to a foreign national.
- Such release is “deemed” to be an export to the home country of the foreign national.



POLICY

# Security Concern Regarding Deemed Exports

---

- Deemed exports are an important part of the overall mission of the U. S. Government to control exports and re-exports of sensitive U.S. technology to destinations of concern.
- Foreign governments may seek to gather sensitive technology in the United States.



# Foreign National Employment

---

- Include the following information for DTSA review:
  - Foreign national's biography/resume
  - Description of job duties
  - Company organization chart showing where the foreign national fits into the organization
  - List of all other foreign nationals working at the company, their job title, and where they fit in the organization
  - Copy of Non-Disclosure Statement
  - Copy of Technology Control Plan



POLICY

# Industry Briefings

---

- DTSA is constantly asked if a company can come in to brief a program.
  - Wrong Answer: After the license is submitted (Too Late!)
  - Right Answer: When requested.
  - Best Answer: Before you start the program!
    - Gives us the opportunity to tell you our concerns
      - so you may be able to engineer around them
    - Provides a heads up to you of USG concerns
  - Remember, we are not buying your product, conduct brief accordingly

# Export Control Reform Update





# National Security and Partnership Enhanced with New Controls

---

- **Better protection of “crown jewel” technologies**
  - Clearer distinction between items on the munitions and dual-use lists, and controls based on their significance for military and intelligence applications, will enable the U.S. government and industry to better identify and protect critical items and technologies
- **Partnership capacity and cooperation with Allies enhanced**
  - Delays in exports have impacted the operational capabilities of countries that are fighting alongside U.S. forces in operations in Afghanistan, Iraq and elsewhere



POLICY

# Export Control Reform

---

- **Fundamental reform of the U.S. export control system**
  - Driven by national security – protect “crown jewel” technologies, while expediting cooperation with allies and partners
  - Goal is to ensure allies and partners have advanced capabilities so they may take on greater defense roles and missions
  - At the same must protect the very technology that enables – smaller, more agile and technologically advanced US forces
- **Why you should care**
  - New licensing mechanisms (e.g., Commerce Department’s Strategic Trade Authorization (STA)) and greater flexibility will remove unnecessary obstacles to greater security cooperation with allies and partners
  - Facilitates cooperation with our allies and close partners in order to share technology and costs of developing future weapons systems



POLICY

# Technology Security and New U.S. Defense Strategy

---

- Export Control Reform initiatives provide essential tools for meeting the challenges the Secretary of Defense set forth in “Sustaining U.S. Global Leadership: Priorities for the 21<sup>st</sup> Century Defense,” including:
  - Ensuring U.S. Allies and partners have advanced capabilities so they may take on greater defense roles and missions, but protect the very technology that enables “Smart Defense” – smaller, more agile and technologically advanced forces.
  - Facilitating cooperation with our Allies and close partners so that we can share technology and the costs of developing future weapons systems.
- Significant reforms under the Export Control Reform initiative and DoD technology security and foreign disclosure review processes will greatly facilitate cooperation with our foreign partners and advance the objectives of “Smart Defense.”



POLICY

# Facilitating Interoperability and Cooperation with Allies

---

- **New Department of Commerce License Exception Strategic Trade Authorization (STA) – June 2011**
  - Benefits 36 Allies and close partners with robust export control systems
    - Requirements:
      - For government end-use only
      - Enhanced record-keeping
    - Allows for retransfer among the 36, without prior USG authorization
  - License-free exports of most dual-use items
  - USML items, parts and components moved to the Commerce Munitions List (CML) will be eligible for export under STA
    - Will speed provision of equipment to Allies and partners who fight alongside us in coalition operations
  - Additional group of 8 countries are eligible for Wassenaar Basic List items license-free



# Strategic Trade Authorization

---

## **36 Eligible Destinations**

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey and United Kingdom

## **8 Eligible Destinations**

Albania, Hong Kong, India, Israel, Malta, Singapore, South Africa, and Taiwan



# Ongoing Work on the Four Singles

---

- **Single Control (Licensing) Agency**
  - Requires legislation – Administration’s bill has not yet been submitted to Congress
- **Single Export Control List**
  - Work on-going to rewrite USML and CCL – so that eventually the two can be merged into one list
  - “Positive” list should be easier for Allies and partners to navigate
- **Export Enforcement Coordination Center at DHS**
  - EECC opened on March 7, 2012
  - Also opened new Information Triage Unit, located at Commerce, to coordinate intelligence community support
- **Single IT system (based on DoD’s USXPORTS)**
  - Expect full operational capability with all agencies by mid-2012 (Commerce, State, Treasury, Energy, Intelligence Community, Homeland Security, NASA)



POLICY

# Focus of DoD's Reform Efforts

---

- **Rewriting the U.S. Munitions List**

- DoD established 19 working groups to review the full scope of items, technology and software controlled under the USML; initial drafts were completed by June 2011.
  - Participants included a wide range of experts from the Military Departments and the research and development community.
- Working closely with the Departments of Commerce and State, and other agencies, to finalize drafts for publication and comment.
- Draft controls are being published in the Federal Register as categories are completed.
- Updates to USML Category VIII and the establishment of Category XIX was released in April 2013 as well as the corresponding CCL "600" series.



POLICY

# USML Rewrite

---

- **Transferring USML items to the Commerce Control List**
  - We are identifying military critical technologies that continue to require full protection under the USML as well as defense items that can be moved to the new Commerce Munitions List.
    - Aircraft: We are making a distinction between components that provide true military advantage, such as:
      - Low observability capabilities and fire control computers, and
      - Parts and components that provide no unique military function such as wheels, brakes, nuts, and bolts.



# Commerce New “600” Series

---

- Will include items that are specially designed for a military application and specifically identified defense end items that do not warrant the stringent controls of the USML
  - Three basic parts:
    - “end-items”
    - generic “parts,” “components,” “accessories,” and “attachments” that are “specially designed”
    - specific parts and components that warrant controls only to terrorist-supporting countries or if destined for a military end-use in China (subject to general policy of denial)



POLICY

# USML - Aircraft and Related Articles



## Federal Register Proposed Rules

- Bombers
- Fighters, fighter bombers and fixed-wing attack aircraft
- Jet-powered trainers used to train pilots
- Attack helicopters
- Unmanned aerial vehicles (UAV's)
- Military intelligence, surveillance, and reconnaissance aircraft
- Electronic warfare, airborne warning and control aircraft
- Air refueling aircraft and Strategic airlift aircraft
- Target drones
- Aircraft equipped with any mission systems controlled under this subchapter; or
- Aircraft capable of being refueled in flight including hover-in-flight refueling
- Launching and recovery equipment
- Developmental aircraft and “specially designed” parts, components, accessories, and attachments therefore developed under a contract with the DoD
- Aircraft components, parts, accessories, attachments, and associated equipment as follows:
  - Components, parts, accessories, attachments, and equipment” specially designed” for the following U.S.-origin aircraft: B-1B, B-2, F-15SE, F/A18E/F/G, F-22, F-35 (and variants thereof), F-117 or United States Government technology demonstrators
- Illustrative list only
- Reference Federal Register / Volume 76, No. 215 / Monday, November 7, 2011 / Proposed rules, page 68697



POLICY

# USML F-16



## F-16 Specific USML Items

- Assembled engines
- Weapons pylons
- Mission systems
- Bomb racks
- Missile launchers
- Fire control computer
- Radar
- Radar warning receiver
- Radar jammer
- Laser/Missile warning system
- Countermeasures dispensing system
- Aerial refueling receptacle
- Helmet mounted displays/Sights

## Other Aircraft USML Items

- Aircraft wing folding systems and parts & components
- Tail hooks and arresting gear and parts and components
- Missile rails, weapon pylons, pylon-to launcher adapters, UAV launching systems, and external stores support systems and parts and components
- Damage/failure-adaptive flight control systems
- Threat-adaptive autonomous flight control systems
- Air-to-air refueling systems and hover-in-flight refueling (HIFR) systems and parts and components
- UAV flight control systems and vehicle management systems with swarming capability

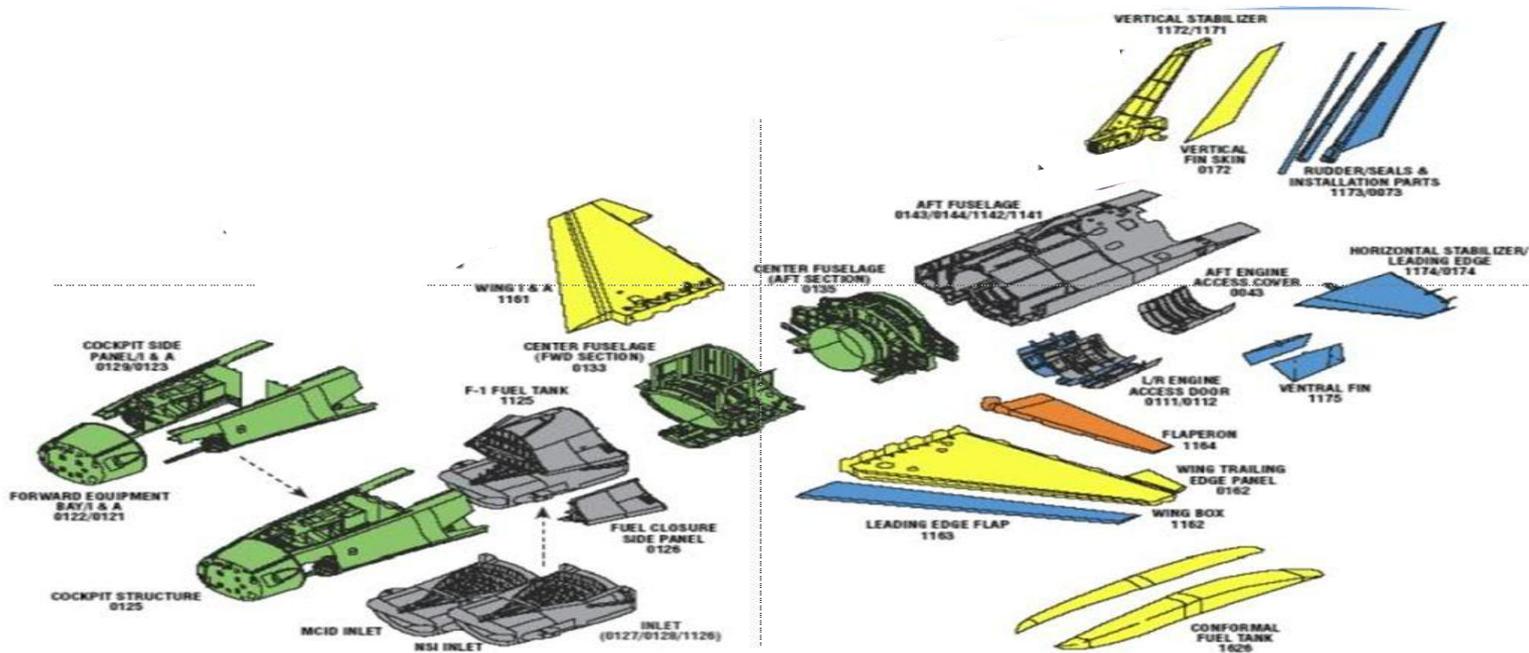
• Illustrative list only

• Reference Federal Register / Volume 76, No. 215 / Monday, November 7, 2011 / Proposed rules, page 68697



POLICY

# “600 Series” F-16 Parts



- Wings, Rudder, Fin, Panels
- Fuselage – Forward, Center, Aft
- Cockpit structure
- Forward equipment bay
- Horizontal stabilizer
- Conformal fuel tank
- Cartridge Actuated Device, Propellant Actuated Device (CAD/PAD)
- Control surfaces, activation & control systems

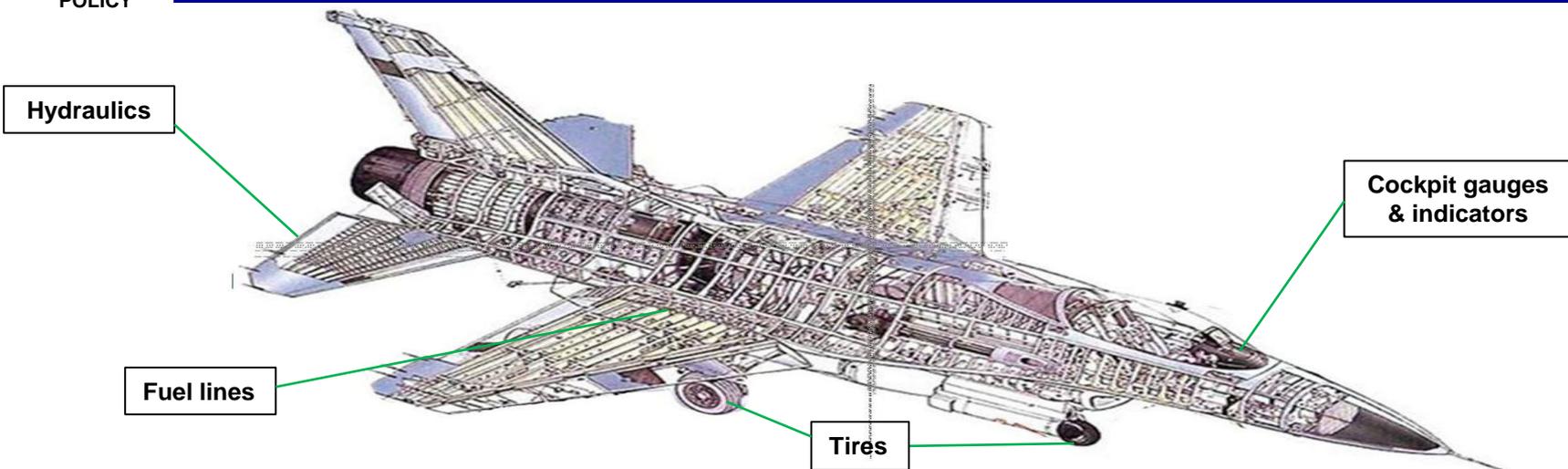
- Internal & Exterior fuel tanks
- Engine inlets and ducting
- Wing box
- Flaperon
- Static structural members
- Exterior skins, Fairings, Radomes, Access doors
- Leading edge flap
- Landing gear
- Technology associated with above items

• Illustrative list only  
 • Reference Federal Register / Volume 76, No. 215 /  
 Monday, November 7, 2011 / Proposed rules, page 68689



POLICY

# 600 Series “.y “ F-16



## F-16 Specific .y Items

- Aircraft tires
- Analog cockpit gauges and indicators
- Hydraulic System Filters
- Check valves
- Hydraulic & Fuel hoses, Fittings, Clips, Couplings, Nut plates, Brackets
- Cockpit mirrors
- Beacons
- Urine collection systems
- Cockpit panel knobs, Switches, Buttons, Dials

## Other Aircraft .y Items

- Audio selector panels
- Check valves for hydraulic and pneumatic systems
- Crew rest equipment
- Ejection seat mounted survival aids
- Energy dissipating pads for cargo (for pads made from paper or cardboard)
- Filters and filter assemblies for hydraulic, oil and fuel systems
- Steel brake wear pads (does not include sintered mix)
- Propellers, Propeller systems, and Propeller blades used with reciprocating engines

- Illustrative list only
- Reference Federal Register / Volume 76, No. 234 / Tuesday, December 6, 2011 / Proposed rules, page 76081



# Ongoing Export Control Reform Actions

---

- New definitions of defense services and levels of maintenance
- New policy on defense articles embedded in commercial items
- New exemption for replacement parts
- New definition of “specially designed” to replace “specifically designed, modified, or adapted”
- Updated “by or for” the USG exemption
- Single License Form
- USG program licenses
- Elimination of foreign party signature requirement on TAAs
- Commerce Department Transition Rule
- Public Comments for Category VIII and XIX have been reviewed by the IA (e.g., accepted, rejected, accepted in part, or not applicable)



# Technology Security and Foreign Disclosure Reform Efforts

---

- **As part of export control reform, DoD is streamlining internal technology security and foreign disclosure review processes (TS&FD)**
- **The TS&FD Office (TSFDO) coordinates and oversees complex and high level interest TS&FD requests through various DoD review processes**
  - These changes are reducing the time to respond to Allies and coalition partner requests for major weapons systems and/or development programs



# **TSFDO – Looking Ahead**

---

- **TSFDO is taking an “anticipatory stance” to future transfers, in coordination with Combatant Commanders (COCOMs) priorities, and in conjunction with Security Cooperation Reform**
  - For example, developed policy on transfers of select unmanned aircraft systems (UASs)
    - Allows expedited responses to future Letters of Request (LOR) or Requests for Proposal (RFP)
  - Other capabilities, including software defined radios, stand-off weapons, electronic warfare, and missile defense are being considered



POLICY

# Summary

---

- Comprehensive studies and reforms undertaken over last 3 years.
  - Still much work to be done
- Changes are difficult but we are making progress
  - Top-level commitment within Department
  - Changes this large in scope take time
  - Change in fundamental direction and interruption of implementation will hinder completion of the efforts currently underway
- Continued engagement needed with interagency (DoS, DoC) and Congress

# Defense Technology Security Administration



Questions?